



FORTY-FIFTH

# Annual Report

of the

MEDICAL OFFICER. OF HEALTH

of the

Urban Sanitary Authority of the  
City of Worcester.

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Year 1918.

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# THE FORTY-FIFTH REPORT OF THE MEDICAL OFFICER OF HEALTH,

being that for the year 1918.

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*To the Urban Sanitary Authority of the  
City and County of Worcester.*

Gentlemen,

THE Local Government Board has again requested that the Medical Officer's Annual Report shall be condensed, and that only prominent features of the work shall be recorded. Statistical Tables which were printed in the Reports before 1914 have been prepared each year and filed for comparison with past and future years.

The epidemic of influenza which began in the third week of October and lasted for eight weeks was of a virulent type, and no less than 136 deaths were registered as directly due to it. This caused a serious increase in the death-rate, which rose to 15·4 per 1000, the highest rate recorded since 1908.

There were 800 births and 785 civilian deaths, the natural increase of the population of 51,000 being only 15.



The same relation between births and deaths prevailed through the whole kingdom. This must be a very serious condition for the nation, and one requiring that great efforts should be made to maintain the best possible standard of health among the people.

The greatest war in history has brought vast changes in public opinion on all questions respecting the public health. The discovery by the Medical Recruiting Boards that a considerable proportion of the male population between 19 and 45 were unfit to defend their country was a shock to the minds of those who had not previously thought much about the public health, and they have decided to run no such risks in the future.

For some years past the country has set itself to improve the chances of infant life. It has now realised that the mothers of the nation must be helped, before the infants are born, during birth, and subsequently, if the baby citizen is to have a fair chance.

The school children are to have their ailments detected and corrected by the School Doctors; the teeth, eyes, ears, &c., of the children are to be attended to through school life. All these things are very necessary, and quite possible if a sufficient staff of Doctors, Dentists and Nurses are provided. The ailments to be treated in children are just those that have not been treated in the past by anyone, and slight troubles have developed into serious ones.

The great success which has, up to the present, attended the efforts of the Council to preserve infant life, and which

has brought down the infant death-rate from 148 to 60 during this century, affords good hope that the health of the older children will be improved, and a higher standard be gained and maintained.

A more difficult matter is that of Housing. A large number of dwellinghouses in this City cannot be dignified by the name of home. They lack the decencies that is implied in that word, and which every citizen should expect to find in the house he lives in. I am hoping that the legislation promised on Housing will make a home possible to all. Each house will need sufficient air space without and within, water supply, scullery, and sanitary conveniences on the premises. We are told that all the houses to be built by Public Authorities are to possess a bathroom, a most desirable addition.

There can be no doubt that bad housing is the direct cause of a large amount of sickness, and brings about such conditions of ill-health, that the germs of Tuberculosis and of other diseases find a soil in which they can live and multiply.

I am,

Mr. Mayor and Gentlemen,

Your obedient Servant,

MABYN READ.

May 14th, 1919.

The great success which has up to the present attended the efforts of the Council to preserve infant life, and which



The lowest rate that has been recorded. The rate for England and Wales was 97, and that for the 148 smaller towns was 94.

**The Population** of the City in the middle of 1918 is estimated at 51,000. The war conditions make the estimation very difficult. The rates in the following paragraphs are based on the above estimate.

**The Birth-rate** is 15.68 per 1000 of the population, and is slightly higher than that for 1917, but is 3 per 1000 below the average of the years 1913-17. The births numbered 800, of which 61 were illegitimate.

The birth-rate for England and Wales was 17.7, and that for the 148 smaller towns, among which Worcester is classed, was 17.9.

**The Death-rate** was 15.4, which is 2 per 1000 above the rate for 1917, and 1.3 above the average rate of the years 1913-17.

The deaths of civilians (soldiers' deaths are excluded) numbered 785, *only 15 fewer than the number of births.*

The rate for England and Wales was 17.6, and that of the 148 smaller towns was 16.1.

It will be noted that the death-rate for England and Wales was only .1 per 1000 above the birth-rate. This disastrous equality of the death and birth rate was brought about by the deadly epidemic of Influenza that attacked the whole kingdom during the autumn.

**The Infant Death-rate** was 60 per 1000 births registered,

the lowest rate that has been recorded. The rate for England and Wales was 97, and that for the 148 smaller towns was 94.

For the five years 1901-5, the yearly average rate was 148  
 " " 1906-10 " " 146  
 " " 1911-15 " " 87  
 For the year 1916 it was 78  
 " " 1917 " " " " 64  
 " " 1918 " " " " 60

This is a result of which the City may well feel proud, and which has been achieved by the faithful services of many through a series of years; and especially thanks are due to the Nurses, both those employed in district nursing and those in the service of the Council.

The Zymotic Death-rate was 35, which is 05 lower than that for 1917. The deaths numbered 18, eight being from Diarrhoeal diseases, five from Diphtheria, two from Scarlet Fever, two from Whooping Cough, and one from Paratyphoid Fever.

The death-rate from Cancer ... was 1.18  
 " " Pulmonary Tuberculosis " 1.5  
 " " all other forms of Tubercle " .27  
 " " all Respiratory diseases... 2.18

The Infant Death-rate was 60 per 1000 births registered



## The Infectious Diseases.

**Smallpox.**—No cases have been reported during the year.

**Scarlet Fever.**—There were 26 cases notified, and 21 of the patients were removed to the Newtown Hospital. Three were secondary cases. Five of the patients were over 16 years of age. The disease was mostly of a mild type, but two children died, one after a long illness.

**Diphtheria.**—There were 60 cases notified, four being secondary. All the patients were removed from their homes except five. In five instances the patients were admitted to the General Infirmary for the operation of tracheotomy, and in three cases the operation did not succeed in saving the life of the child. Twelve of the persons were under 5 years of age, 30 between 5 and 10 years, 11 between 10 and 15, and seven over 15 years of age.

**Typhoid and Paratyphoid Fevers.**—One case of the latter disease occurred in a person over 65 years of age, and death resulted.

**Puerperal Fever.**—One case only was notified and the patient recovered.

**Ophthalmia Neonatorum.**—There were 11 cases notified during the year. In no instance was there any permanent injury to the sight caused by the infection. One of the babies died within a month of birth from hereditary disease.



Many of the babies were treated as out-patients at the Ophthalmic Hospital, and it is due to the skill of the Surgeons and the care of the Matron that the successful results were obtained.

**Cerebro-spinal Meningitis.**—No case of this disease was notified during the year.

In April the Local Government Board made Regulations providing for the serum treatment of persons suffering from or suspected to be suffering from this disease at the expense of the local authority in whose area the case occurred.

The Health Committee resolved that a supply of serum should be kept, and also the apparatus necessary for spinal puncture and the administration of the serum.

All the medical practitioners were informed of these Regulations and of the place where the serum and apparatus could be obtained—both free of cost to the patient.

**Acute Poliomyelitis.**—One case was notified of this disease, a baby 10 months old, and the child died after an illness lasting seven weeks. This was the only child in the family, and no illness of a like character had occurred in the house. No spread of infection took place, and disinfection was carried out by the Sanitary Inspector.

**Whooping Cough.**—This disease is not included among those that must be notified to the Sanitary Authority. Knowledge of the occurrence of cases comes from the Elementary Schools and from the Health Visitors. The

latter make enquiries concerning such cases, and advise medical treatment where it has not already been obtained.

Two deaths were registered from this disease, both in children under one year of age.

The spread of the disease is very difficult to control as it is most infectious before the characteristic signs show themselves.

**Diarrhœal Diseases.**—Eight children under five years of age were registered as having died of these diseases, and five of these were under one year of age. As the summer months were not unusually hot there was no marked incidence of the diarrhœal disorders.

**Measles (Morbilli) and German Measles (Rubella).**—These diseases did not occur in epidemic form during the year. During the second quarter of the year nearly two-thirds of the cases were notified, and only two during the fourth quarter.

No deaths from these diseases were notified.

The following Tables show the distribution of the cases of these diseases:—

**MORBILLI.**

|                              | Quarters— | 1st | 2nd | 3rd | 4th | Total. |
|------------------------------|-----------|-----|-----|-----|-----|--------|
| Adults .....                 | 2         | 17  | 10  | 23  | —   | 22     |
| Children at School ...       | 18        | 62  | 10  | —   | —   | 90     |
| Children not at School ..... | 3         | 39  | 14  | 2   | —   | 58     |
| Secondary Cases .....        | 13        | 31  | 9   | —   | —   | 53     |
|                              |           | 36  | 149 | 36  | 2   | 223    |



| RUBELLA.               |              |     |     |     |        |
|------------------------|--------------|-----|-----|-----|--------|
|                        | Quarters—1st | 2nd | 3rd | 4th | Total. |
| Adults .....           | 3            | 7   | 1   | —   | 11     |
| Children at School ... | 9            | 32  | 12  | —   | 53     |
| Children not at School | 3            | 6   | 1   | —   | 10     |
| Secondary Cases .....  | —            | —   | 6   | —   | 7      |
|                        | 15           | 46  | 18  | —   | 81     |

Of the 223 cases of Morbilli, 192 were notified by doctors and 31 by parents.

Of the 81 cases of Rubella, 77 were notified by doctors and four by parents.

These figures show that a large proportion of the patients were under medical care.

These diseases did not spread in any particular school, with the exception of those in the Rainbow Hill district, where in April and May 34 cases occurred.

## Tuberculosis.

There were 126 persons notified during the year, of whom 15 were men who had served in the Army. This number is greater than in any year since 1914, but the increase is in the Non-pulmonary cases.

|                         | Pulmonary. | Non-pulmonary. |
|-------------------------|------------|----------------|
| Notifications—1918..... | 83         | 43             |
| — 1917.....             | 102        | 26             |
| — 1916.....             | 86         | 27             |
| — 1915.....             | 85         | 37             |
| — 1914.....             | 116        | 46             |
| — 1913.....             | 133        | 27             |

**Pulmonary Tuberculosis.**—Of the 83 cases, 16 were males and 37 females; 10 of the males and three of the females being under 15 years of age—

A number of these patients had an advanced stage of the disease when notified, and no less than 23 died before the end of the year.

|                                     | Notified. | Died before<br>Dec. 31, 1918. |
|-------------------------------------|-----------|-------------------------------|
| Persons under 10 years of age ..... | 8         | 2                             |
| „ from 10 to 25 years of age .....  | 25        | 5                             |
| „ „ 25 to 45 .....                  | 31        | 17                            |
| „ „ over 45 .....                   | 19        | 9                             |

Of these 23 patients, five died within a week, nine more within two months, and seven within six months from the date of notification of the disease.

**Non-pulmonary Tuberculosis.**—Of the 43 cases, 15 were males and 28 females. Twenty were under 10 years of age, and nine of these died. Sixteen patients had disease of the glands of the neck, eight of the abdominal glands, 12 of the bones or joints, and five of the covering of the brain.

**Knightwick Sanatorium.**—The Council has eight beds reserved at this Institution, and during the year 25 patients from the City were treated there—13 men, 11 women, and one girl a non-pulmonary case. The 13 men were all insured persons, five of them having served in the Army. Of the 11 women eight were insured persons.



**Newtown Hospital.**—On January 1st there were 16 patients in the pavilions. During the year 71 patients were admitted—39 males and 32 females. Four of these patients came from outside the City, the County Council paying for the maintenance of these patients for a period of three months.

Of the 39 males, 14 were ex-soldiers, 14 were under the age of 15, and 11 were insured persons. Four remained inmates until their death.

Of the 32 females, 14 were insured persons, four not insured, and 12 were girls under 16 years. Three of the patients died during the year.

At both these Institutions the patients are usually admitted for a period of three months. Some of them remain a longer time, but many are not willing to do so. Unless the disease is in quite an early stage and the home conditions to which they return are good, the three months' stay is quite insufficient to bring about arrest of the disease.

**Tuberculosis Dispensary.**—This is the most important part of the campaign against Tuberculosis, and more time ought to be given to it than is possible under present conditions.

The following Table gives the number of persons (447) seen at the Dispensary, and the number of attendances (1691) made by them during the year. Some of these patients have been attending for years. It will be seen that nearly 20 per cent. are contacts, largely children who

live or have lived in a house with a consumptive person. As young children are specially liable to become infected with the disease if under unfavourable conditions, it is important that a watchful eye should be kept on them and everything done to increase their resistance to the disease.

The urgent need of a Care Committee is once more brought to the notice of the Council. The Tuberculosis Nurse works hard in endeavouring to fill this gap, but such a Committee could do much to alleviate the condition of many of the sufferers and to make their lives happier.

[illegible]



Dispensary, 1918.

|   | Under 16. |          |        | 16 and over. |          |        |
|---|-----------|----------|--------|--------------|----------|--------|
|   | Males.    | Females. | Total. | Males.       | Females. | Total. |
| Notified persons .....                                    | 41        | 52       | 93     | 88           | 80       | 168    |
| Sent by Medical Men for examination .....                 | 19        | 11       | 30     | 12           | 19       | 31     |
| Contacts .....  | 29        | 45       | 74     | 1            | 17       | 18     |
| Sent by Societies .....                                   | ...       | 3        | 3      | ...          | 1        | 1      |
| Sent by School Medical Officer .....                      | 9         | 5        | 14     | ...          | ...      | ...    |
| Ex-soldiers .....   | ...       | ...      | ...    | 15           | ...      | 15     |
|   | 98        | 116      | 214    | 116          | 117      | 233    |
| Attendances at Dispensary made by the above persons ..... | 350       | 448      | 798    | 453          | 440      | 893    |

14

|   | Insured. |          |        | Non-Insured. |          |        |
|---|----------|----------|--------|--------------|----------|--------|
|   | Males.   | Females. | Total. | Males.       | Females. | Total. |
| Notified persons .....                                    | 84       | 53       | 137    | 46           | 70       | 122    |
| Sent by Medical Men for examination .....                 | 12       | 6        | 18     | 22           | 23       | 45     |
| Contacts .....  | 1        | 10       | 11     | 25           | 56       | 81     |
| Sent by Societies .....                                   | ...      | ...      | ...    | ...          | 4        | 4      |
| Sent by School Medical Officer .....                      | ...      | ...      | ...    | 9            | 5        | 14     |
| Ex-soldiers .....   | 15       | ...      | 15     | ...          | ...      | ...    |
|   | 112      | 69       | 181    | 102          | 164      | 266    |
| Attendances at Dispensary made by the above persons ..... | 425      | 262      | 687    | 399          | 605      | 1004   |

NOTE.—Many of the persons included among “Notified persons” and “Contacts” are those who attended the Dispensary in years previous to 1918, and are being kept under observation.

**Epidemic Influenza.**—In 1891 and 1892 the City was attacked with this disease. The deaths recorded in those years were respectively 9 and 47, and in both years nearly all the deaths were in persons over 45 years of age.

Since 1892 deaths from this disease have been recorded yearly. In 1895 there were 31 deaths; in 1898, 20; in 1899, 21; in 1900, 38; and in 11 other years more than 10 deaths were registered from this disease. In all these years the deaths were, in 75 per cent. of the cases, of mature adults over the age of 55. During the epidemic that raged in the City from the 3rd week in October to the 3rd week in December, the striking and lamentable feature was that the fatality was among the young adults, taking from the homes the fathers and mothers of families.

This epidemic caused the death directly of 136 persons, and 62 of these were between the ages of 25 and 45; and indirectly of many others, some being registered as Pneumonia, and some from a chronic disease which the person had before being attacked by Influenza, such as Tuberculosis.

There was, most unfortunately, a scarcity of medical men and of nurses, and neither of these could be augmented, as in nearly all parts of the Kingdom a similar epidemic was prevailing.

The Royal College of Physicians issued a Memorandum on Influenza, which was widely circulated, and which said "This outbreak is essentially identical, both in itself and in its complications, including Pneumonia, with that of 1890." "The present epidemic has no relation to plague, as some have suggested."



## The Public Health (Venereal Disease) Regulations.

In the Annual Report for 1917 these Regulations were explained, and also the arrangements that had been made with the Committee of the General Infirmary for their working.

The work has progressed satisfactorily during the year, taking into consideration the fact that the patients may attend or not attend as they think fit. For instance, of the 49 men and 99 women who were under treatment for Syphilis, 12 of the former and 11 of the latter ceased attendance at the Clinic before the completion of the treatment. The virulence of the infection may have been lessened, but it could not be said that the individuals have ceased to be infectious nor that the dangers of the disease have been averted.

Of the new patients attending at the Clinics during the year, 102 gave their address as being in the City, 53 of the patients were suffering from Syphilis and 22 from Gonorrhœa. Twenty-seven other persons came for examination but were not suffering from either of these diseases. There were 1364 attendances made by all the City patients, and the aggregate number of "in-patient days" was 563.

The Local Government Board in a circular dated December 10th, 1918, pressed on the Local Authorities the importance of extending their facilities for treatment in view of the great risks of the spread of the disease likely to follow on the impending demobilisation.

The circular letter was considered by the Medical Officer of the Treatment Centre (Mr. T. Bates, F.R.C.S.), and after consultation with him I reported on the matter to the Health Committee. Any person can apply at the General Infirmary for immediate treatment of these diseases and will be dealt with by the House Surgeon until the next Clinic is held, when the Medical Officer of the Centre will see the patient and treat him as may be needed. The patients suffering from Gonorrhœa may attend daily at certain hours for local treatment by the Orderly or by the Nurse, both acting under the orders of the Medical Officer.

A Joint Committee was formed by members appointed by the County and City Councils, and an Enlightenment Campaign was carried on during the week commencing on May 12th. There were twelve Meetings held during the week, most of which were well attended. The lady, Miss Wakefield, who came from London and addressed the meetings found "considerable ignorance and not a little prejudice" shown on the subject. There is no doubt in all classes of society a strong tendency to shun discussion or even proper consideration of these matters, but until knowledge of the dangers of these diseases, both to the individual and to the race, is common property, their ravages will continue. The public must be brought to face the consequences of the present weak-kneed policy. Treatment secret and free is offered, but many will not accept it and others will not continue it until cured. The Health Committee in October had before them resolutions passed by the Corporation of Bootle, and



The circular letter was considered by the Medical Council, and recommended your Council to pass similar resolutions, which was done at the November Meeting. The resolutions asked the Local Government Board to initiate legislation (a) to require the notification to Health Authorities of all patients suffering from Venereal diseases who, without adequate cause, discontinued treatment before it was completed, and (b) to require certificates of freedom from Venereal disease or a statutory declaration to that effect, to be produced before marriage.

This threat of notification would probably influence a good many of the patients to continue under treatment until dismissed as cured.

### **Maternity and Child Welfare.**

This work has developed in various directions during the year, and the Local Government Board has promised the 50 per cent. grant of the sums expended.

It is possible to help mothers at their confinements by paying the fees of doctors and mid-wives in necessitous cases, thus insuring skilled attendance to all.

It is permissible to provide milk for nursing and expectant mothers and for children up to the age of five years. A large sum of money was provided by the Council for this purpose and was of the greatest value, especially during the severe epidemic of Influenza which attacked the children. The milk supplied was, in the opinion of the nurses, the means of saving the lives of many children.

In connection with this matter of milk supply the Council purchased a well-equipped Dairy in Broad Street, and took over the control of the business in October. It is possible that, had not this been done, the Dairy would have been closed and the milk have been sent elsewhere than into the City. This would have been disastrous to the Child Welfare Scheme, which the Council has been fostering. The Dairy was visited on May 2nd by a Medical Officer of the Local Government Board, who was interested in the new departure, and was sympathetic towards the Council's endeavours on behalf of the children.

The efforts of the Health Committee to obtain a house which was conveniently situated and in other ways suitable for a Day Nursery, were at last successful, and the Council agreed at their January meeting to lease 54, Lowesmoor and to adapt it for that purpose. This took some time owing to War conditions and it was not ready until June 1st, when the Mayor and Mayoress graciously opened the building. There has not been as many children brought as was reasonably expected. The daily average has varied from 9 to 17. Many of the children are not brought on Saturdays, when the elder girls are at home from School. The mothers fully appreciate the care and attention the children get, and gladly pay the small sum asked.

There has been no case of infectious disease among the children, the possible occurrence of such being a constant anxiety to those responsible for such institutions.

Besides the release of the mother for daily work, when it is necessary for the maintenance of her family, the child's



educated into good habits, improved in health, and the mother is incidentally taught some parts of "Mothercraft" of which she is often ignorant and which *does not come by instinct.*

The Health Committee constituted a Sub-Committee to organise and administer the work of the Day Nursery, on which five ladies were appointed, and valuable help has been given by them, especially at the commencement in respect of the furnishing.

This Sub-Committee was made a statutory one in accordance with the provisions of the Maternity and Child Welfare Act, 1918.

The work of the Clinics held at the four centres has much increased during the year, and under the able superintendence of Dr. Marion Andrews has been highly successful. It has been of the very greatest benefit that a lady doctor of her ability and experience was obtained by the City to inaugurate and develop the work.

The following summary of the attendances has been sent me:—

|   | St. Clement's | Bank Street. | Bank Street. | St. Paul's | Total. |
|---|---------------|--------------|--------------|------------|--------|
|   | Wednesday.    | Friday.      |              |            |        |
| Number of new Babies.                   | 74            | 205          | 240          | 106        | 625    |
| Number of attendances.                  | 547           | 2070         | 1631         | 1098       | 4346   |
| Babies making only one attendance ..... | 21            | 92           | 112          | 64         | 289    |
| Number of new Mothers.                  | 36            | 58           | 60           | 27         | 181    |
| Attendances made by Mothers             | 103           | 140          | 116          | 85         | 444    |
| Days the Clinics were held              | 45            | 47           | 48           | 45         | ...    |

There were 779 live births and 30 still-births notified during the year. The Nurses' Register had 662 new names of babies entered on it, and the nurses paid 614 first visits to the homes of these babies. They paid during the year 6,898 visits, including those to expectant and nursing mothers, to children up to the age of five years, to cases of Ophthalmia Neonatorum and Measles, and made the various enquiries necessary in the working of the Child Welfare scheme.

The nurses really have more work than they can perform adequately, and the additions made during 1918 put a strain on them that told upon their health. The intimate association with the lives and homes of the poorer classes, and the sympathy with their struggles which is necessary if efficient help is to be given, is exhausting to the nervous energy, and unless the strain is relaxed at times, the work is less efficiently done.

## The City Water.

The usual analysis of the pure water tank have been taken week by week, and through most of the year were satisfactory. Once in January and once in April the bacilli coli were found in considerable numbers.

During some weeks of November and December a large number of micro organisms were found in the filtered water, and investigation showed that the fault was in some of the filters in the levels below the sand. The City En



gineer has proposed improvements that will provide against a recurrence of the mishap.

### **The Housing Acts.**

It has not been possible during the year to put the Housing and Town Planning Act, 1909, in force, owing to the procedure which obliges closure of the houses and eviction of the tenants. There has been a famine of houses rented from 3s. to £50, and the closure of any house has been out of the question.

In consequence of the great scarcity of labour and of material, many of the houses have fallen into disrepair, and there has been much difficulty in getting the defects remedied. The Sanitary Inspectors, with a decreased staff, have done what was possible, and the details are to be found in Mr. Taylor's report.

It will be some time before the great arrears of dilapidations are overtaken.

### **The City Water.**

### **The City Hospital.**

During the year 76 patients were admitted for treatment, 22 having Scarlet Fever and 54 Diphtheria.

There were two deaths from Diphtheria, one a boy aged seven, the other a girl aged nine, who lived only a few hours after her admission.

The attacks of Scarlet Fever were mostly of a mild type. Sixteen of the patients were weighed on admission and discharge and the average gain was 5 lbs. It may indeed be said that the attack of Scarlet Fever was highly beneficial to those patients.

The following is a Table giving the admissions and deaths under age-groups :—

|                     | Under 5 years. |        | 5 to 10 years. |        | 10 to 15 years. |        | 15 to 20 years. |        | Over 20 years. |        |
|---------------------|----------------|--------|----------------|--------|-----------------|--------|-----------------|--------|----------------|--------|
|                     | Admissions     | Deaths | Admissions     | Deaths | Admissions      | Deaths | Admissions      | Deaths | Admissions     | Deaths |
| Scarlet Fever ..... | 5              | ...    | 11             | ...    | 3               | ...    | 2               | ...    | 1              | ...    |
| Diphtheria .....    | 9              | ...    | 30             | 2      | 9               | ...    | 4               | ...    | 2              | ...    |
| TOTAL.....          | 14             | ...    | 41             | 2      | 12              | ...    | 6               | ...    | 3              | ...    |

|                                      | Scarlet Fever | Diphtheria |
|--------------------------------------|---------------|------------|
| In Hospital, January 1st, 1918 ..... | 3             | 9          |
| Admitted during the year .....       | 22            | 54         |
| Discharged during the year.....      | 25            | 52         |
| Died .....                           | ...           | 2          |
| Remaining in Hospital, Dec. 31, 1918 | ...           | 9          |

The Matron and Staff of the Hospital have worked well during the year in spite of the many difficulties inseparable from the War conditions.



# BIRTH-RATE, DEATH-RATE, AND ANALYSIS OF MORTALITY DURING THE YEAR 1918.

(Taken from the Registrar General's Report for the 4th Quarter of the year 1918).

|                                   | Birth-rate per 1000 Total Population. | Annual Death-rate per 1000 Civilian Population. |                |           |          |                |                 |             |           | Rate per 1000 births.                   |                            |
|-----------------------------------|---------------------------------------|---|----------------|-----------|----------|----------------|-----------------|-------------|-----------|---|----------------------------|
|                                   |                                       | All Causes.                                     | Enteric Fever. | Smallpox. | Measles. | Scarlet Fever. | Whooping Cough. | Diphtheria. | Violence. | Diarrhoea and Enteritis (under 2 years) | Total deaths under 1 year. |
| England and Wales...              | 17.7                                  | 17.6  | 0.03           | 0.00      | 0.28     | 0.03           | 0.29            | 0.14        | 0.49      | 10.99                                   | 97                         |
| 96 great towns (including London) | 17.6                                  | 18.2  | 0.02           | 0.00      | 0.36     | 0.04           | 0.34            | 0.15        | 0.49      | 14.46                                   | 106                        |
| 148 smaller towns ...             | 17.9                                  | 16.1  | 0.03           | —         | 0.25     | 0.02           | 0.25            | 0.14        | 0.38      | 9.73                                    | 94                         |
| London .....                      | 16.1                                  | 18.9  | 0.02           | —         | 0.42     | 0.03           | 0.43            | 0.17        | 0.56      | 15.67                                   | 107                        |
| Worcester .....                   | 15.7                                  | 15.4  | 0.02           | —         | 0.00     | 0.04           | 0.04            | 0.1         | —         | 7.5                                     | 60                         |

# VITAL STATISTICS OF WHOLE DISTRICT DURING 1918 AND FIVE PREVIOUS YEARS.

| Year. | Population estimated to middle of each year. | BIRTHS.              |       | TOTAL DEATHS REGISTERED IN THE DISTRICT. |       | TRANSFERABLE DEATHS                          |  | NETT DEATHS BELONGING TO THE DISTRICT. |                          |             |
|-------|--|----------------------|-------|--|-------|--|--|--|--------------------------|-------------|
|       |  | Un-corrected Number. | Nett. | Number *                                 | Rate. | of Non-Residents registered in the District. | of Residents not registered in the District. | Under 1 Year of Age.                   | At all Ages.             | Rate.       |
|       |  | 3                    | 4     | 6  | 7     | 8  | 9  | Number * 10                            | Rate per 1000 net births | Number * 12 |
| 1     | 2  |                      |       |  | 5     |  |  |  |                          | 13          |
| 1913  | 48,287                                       | 930                  | 930   | 711                                      | 14.72 | 54   | 29   | 83                                     | 89                       | 686         |
| 1914  | 48,424                                       | 994                  | 1000  | 732                                      | 15.11 | 28   | 24   | 88                                     | 88                       | 728         |
| 1915  | 48,071                                       | 995                  | 1000  | 699                                      | 14.09 | 30   | 31   | 83                                     | 83                       | 700         |
| 1916  | 48,459                                       | 878                  | 882   | 654                                      | 13.5  | 44   | 33   | 69                                     | 78.2                     | 643         |
| 1917  | 50,000                                       | 771                  | 773   | 692                                      | 13.84 | 69   | 54   | 50                                     | 64                       | 677         |
| 1918  | 51,000                                       | 792                  | 800   | 783                                      | 15.37 | 64   | 66   | 48                                     | 60                       | 785         |
|       |  |                      |       |  |       |  |  |  |                          | 15.4        |

NOTES.—This Table is arranged to show the gross births and deaths registered in the district during the calendar year, and the births and deaths properly belonging to it with the corresponding rates. The rates should be calculated per 1000 of the estimated gross population as stated in Column 2, without the use of the standardising factor for the district given in the Annual Report of the Registrar-General.

\* In Column 6 are to be included the whole of the deaths registered during the calendar year as having actually occurred within the district, but excluding the deaths of soldiers and sailors that have occurred in hospitals and institutions in the district.

In Column 12 is to be entered the number in Column 6, corrected by subtraction of the number in Column 8 and by addition of the number in Column 9. Deaths in Column 10 are to be similarly corrected by subtraction of the deaths under 1, included in the number given in Column 8, and by addition of the deaths under 1 included in the number given in Column 9.



INFANT MORTALITY 1918. NETT DEATHS FROM STATED CAUSES AT VARIOUS AGES UNDER ONE YEAR OF AGE.

| CAUSE OF DEATH.              |                | Under 1 Week. | 1-2 Weeks. | 2-3 Weeks. | 3-4 Weeks. | Total under 1 Month. | 1-3 Months. | 3-6 Months. | 6-9 Months. | 9-12 Months. | Total Deaths under One Year. |
|------------------------------|----------------|---------------|------------|------------|------------|----------------------|-------------|-------------|-------------|--------------|------------------------------|
| ALL CAUSES                   | Certified ...  | ...           | ...        | ...        | ...        | ...                  | ...         | ...         | ...         | ...          | ...                          |
|                              | Uncertified... | ...           | ...        | ...        | ...        | ...                  | ...         | ...         | ...         | ...          | ...                          |
| Small-pox                    | ...            | ...           | ...        | ...        | ...        | ...                  | ...         | ...         | ...         | ...          | ...                          |
| Chicken-pox                  | ...            | ...           | ...        | ...        | ...        | ...                  | ...         | ...         | ...         | ...          | ...                          |
| Measles                      | ...            | ...           | ...        | ...        | ...        | ...                  | ...         | ...         | ...         | ...          | ...                          |
| Scarlet Fever                | ...            | ...           | ...        | ...        | ...        | ...                  | ...         | ...         | ...         | ...          | ...                          |
| Whooping Cough               | ...            | ...           | ...        | ...        | ...        | ...                  | 1           | ...         | ...         | 1            | 2                            |
| Diphtheria and Croup         | ...            | ...           | ...        | ...        | ...        | ...                  | ...         | ...         | ...         | ...          | ...                          |
| Influenza                    | ...            | ...           | ...        | ...        | ...        | ...                  | ...         | 1           | ...         | ...          | 1                            |
| Tuberculous Meningitis       | ...            | ...           | ...        | ...        | ...        | ...                  | ...         | ...         | 1           | ...          | 1                            |
| Abdominal Tuberculosis       | ...            | ...           | ...        | ...        | ...        | ...                  | ...         | ...         | ...         | 1            | 1                            |
| Other Tuberculous Diseases   | ...            | ...           | ...        | ...        | ...        | ...                  | ...         | ...         | ...         | ...          | ...                          |
| Meningitis (not Tuberculous) | ...            | ...           | ...        | ...        | ...        | ...                  | ...         | ...         | ...         | 1            | 1                            |
| Convulsions                  | ...            | ...           | ...        | ...        | ...        | ...                  | ...         | 1           | 1           | ...          | 2                            |
| Laryngitis                   | ...            | ...           | ...        | ...        | ...        | ...                  | ...         | ...         | ...         | ...          | ...                          |
| Bronchitis                   | ...            | ...           | ...        | ...        | ...        | ...                  | 2           | ...         | ...         | ...          | 2                            |
| Pneumonia (all forms)        | ...            | ...           | ...        | ...        | ...        | ...                  | 2           | 1           | 2           | 1            | 6                            |
| Diarrhoea                    | ...            | ...           | ...        | ...        | ...        | ...                  | ...         | 1           | ...         | 1            | 2                            |
| Enteritis                    | ...            | ...           | ...        | ...        | ...        | ...                  | 1           | 1           | ...         | 1            | 3                            |
| Gastritis                    | ...            | ...           | ...        | ...        | ...        | ...                  | ...         | ...         | ...         | ...          | ...                          |
| Syphilis                     | ...            | ...           | ...        | 1          | ...        | 1                    | 2           | ...         | ...         | ...          | 3                            |
| Rickets                      | ...            | ...           | ...        | ...        | ...        | ...                  | ...         | ...         | ...         | ...          | ...                          |
| Suffocation, overlying       | ...            | ...           | ...        | ...        | ...        | ...                  | ...         | ...         | ...         | ...          | ...                          |
| Injury at Birth              | ...            | 1             | ...        | ...        | ...        | 1                    | ...         | ...         | ...         | ...          | 1                            |
| Atelectasis                  | ...            | 2             | ...        | ...        | ...        | 2                    | ...         | ...         | ...         | ...          | 2                            |
| Congenital Malformations     | ...            | 1             | ...        | ...        | ...        | 1                    | 1           | ...         | ...         | ...          | 2                            |
| Premature Birth              | ...            | 13            | ...        | ...        | ...        | 13                   | ...         | ...         | ...         | ...          | 13                           |
| Atrophy, Debility, and       | ...            | ...           | ...        | ...        | ...        | ...                  | ...         | ...         | ...         | ...          | ...                          |
| Marasmus                     | ...            | ...           | ...        | ...        | ...        | ...                  | 2           | 2           | ...         | ...          | 4                            |
| Other Causes                 | ...            | ...           | 1          | ...        | ...        | 1                    | ...         | ...         | ...         | 1            | 2                            |
|                              |                | 17            | 1          | 1          | ...        | 19                   | 11          | 7           | 4           | 7            | 48                           |

Nett Births in the year of

legitimate 739.

illegitimate 61.

Nett Deaths in the year of

legitimate infants 44.

illegitimate infants 4.

# Sanitary Inspector's Annual Report for 1918.

*To His Worship the Mayor, Aldermen, and  
Councillors of the City of Worcester.*

Mr. Mayor and Gentlemen,

I herewith submit my Fourteenth Annual Report as  
your Sanitary Inspector.

The year 1918 has been a most trying time for owners  
and occupiers of property, as, owing to the shortage of  
materials and labour, great difficulty has been experienced  
in getting ordinary sanitary repairs carried out.

I have frequently had to interview builders and others to  
induce them to aid owners who were desirous of complying  
with our requirements.

However, it will be seen from the Summary given that  
a large amount of work has been accomplished. The total  
number of nuisances, sanitary defects, or contraventions of



bye-laws reported was 1656, to abate which it was necessary to serve 1041 request notices, and write numerous letters to owners and occupiers. Further, in consequence of the request notices not being complied with, your Health Committee ordered me to serve 107 statutory notices, which have been all complied with.

In nine instances I had to ask for authority to institute legal proceedings, but it is satisfactory to report that only two summonses were taken out, as the work required to be done was put in hand after written intimation of the intended proceedings had been sent to the persons concerned. The Magistrates in each case made an order for the notices to be complied with, and ordered the defendants to pay the costs.

## SUMMARY OF WORK DONE DURING 1918.

|   |      |
|---|------|
| Number of Notices (Preliminary) issued.....                       | 1041 |
| "                (Statutory)                    "                 | 107  |
| "                Complaints received and investigated.....        | 360  |
| "                Letters sent with regard to Notices, &c.....     | 694  |
| "                Notices sent to Schools re Infectious Disease... | 132  |
| Rooms cleansed and limewashed.....                                | 336  |
| Dilapidated walls, floors, windows, &c., repaired.....            | 111  |
| Defective roofs and spouting repaired .....                       | 160  |
| Damp walls cured .....  | 25   |
| Wash-houses repaired, cleansed and limewashed .....               | 154  |
| "                floors and yards repaved and repaired .....      | 12   |

|   |     |
|---|-----|
| Glazed stoneware sinks fixed .....  | 12  |
| Sink waste and rainwater pipes disconnected from drain .....  | 20  |
| Drains opened and cleansed .....  | 131 |
| Defective drains repaired or reconstructed .....  | 24  |
| Glazed stoneware gulley traps fixed .....   | 7   |
| Water closets repaired, cleansed and limewashed .....   | 94  |
| „ flushing tanks repaired .....   | 275 |
| „ provided with new basins and traps .....  | 42  |
| Defective joints in pans, traps, and flush pipes repaired .....   | 29  |
| Nuisances from overcrowding abated .....  | 18  |
| „ „ improper keeping of animals .....   | 13  |
| Accumulation of manure removed .....  | 60  |
| Houses provided with proper water supply .....  | 22  |
| Sanitary dustbins provided .....  | —   |
| Miscellaneous .....   | 39  |
| Waste of water reported to Water Inspector .....  | 51  |
| Number of references to City Engineer with regard to<br>dangerous buildings, paving of courts, and foul<br>street gullies ..... | 16  |
| Emptying of ashpits and dustbins referred to the Streets<br>Superintendent .....  | 5   |
| Rooms disinfected after infectious disease .....  | 99  |
| Samples of food and drugs collected for the City Analyst .....  | 137 |
| „ tap and well water .....  | 13  |

### REGISTERED PREMISES.

The following is a list of places over which your Health



Committee have control, and in respect to which bye-laws are in force to regulate the trades carried on therein :—

|   | Added during 1918. | Given up during 1918. | Total on Register Dec. 31, 1918. |
|---|--------------------|-----------------------|----------------------------------|
| <i>Dairies, Cowsheds and Milkshops Order.</i> |                    |                       |                                  |
| .. Purveyors of Milk ..                       | 3                  | 5                     | 57                               |
| .. Cowkeepers ..                              | —                  | —                     | 9                                |
| <i>Private Slaughterhouses.</i>               |                    |                       |                                  |
| .. Registered Private Slaughterhouses ...     | —                  | 11 (void)             | 31                               |
| <i>Common Lodging Houses.</i>                 |                    |                       |                                  |
| .. Registered Houses .....                    | —                  | 2                     | 11                               |
| <i>Houses Let in Lodgings.</i>                |                    |                       |                                  |
| .. Registered Houses .....                    | —                  | —                     | 13                               |
| <i>Offensive Trades.</i>                      |                    |                       |                                  |
| .. Fish Friers .....                          | —                  | —                     | 20                               |
| .. Tripe Boilers .....                        | —                  | —                     | 5                                |
| .. Fellmongers .....                          | —                  | —                     | 3                                |
| .. Rag and Bone Dealers .....                 | —                  | —                     | 6                                |
| .. Gut Scrapers .....                         | —                  | —                     | 2                                |
| .. Hide and Skin and Fat Dealers .....        | —                  | —                     | 2                                |
| .. Bone Boiler .....                          | —                  | —                     | 1                                |

The whole of these premises were periodically visited and were found to be kept in a satisfactory state, and the bye-laws have been observed.

The following is a list of places over which your Health

## UNSOUND FOOD.

During the year the following food has been destroyed as being diseased, unsound, or unwholesome.

*Tuberculosis.*

| Article.                                   | Cause of Condemnation.   |
|--|--------------------------|
| The carcasses and organs of 12 cattle      | Generalised tuberculosis |
| Parts of carcasses and organs of 50 cattle | Localised tuberculosis   |
| The carcasses and organs of 10 pigs        | Generalised tuberculosis |
| Parts of carcasses and organs of 39 pigs   | Localised tuberculosis   |

*Other Diseases.*

|                                   |                                    |
|-----------------------------------|------------------------------------|
| The carcase and organs of 2 cows  | Pericarditis, dropsical            |
| Ditto of 2 cows                   | Emaciation due to Johnne's disease |
| Ditto of 1 calf                   | Black quarter                      |
| Ditto of 2 calves                 | Pleurisy                           |
| Ditto of 7 sheep                  | Natural death                      |
| Ditto of 1 sheep                  | Leucocythæmia                      |
| Ditto of 10 sheep                 | Hydroemic Cachexia                 |
| Ditto of 2 pigs                   | Rachitis, emaciation               |
| Heads and tongues of 14 cattle    | Actinomycosis                      |
| 122 livers and 24 lungs of cattle | Locally diseased                   |
| 301 livers and 47 lungs of sheep  | Locally diseased                   |



| Article.                       | Cause of Condemnation.                    |
|--------------------------------|---|
| 13 livers and 13 lungs of pigs | Locally diseased                          |
| 317 lbs. of meat               | Unwholesomeness due to injury during life |
| 2952 lbs. of frozen beef       | Mouldy, decomposition                     |
| 530 lbs. of pickled beef       | Decomposition                             |
| 425 lbs. of bacon              | Decomposition                             |
| 315 lbs. of herrings           | Decomposition                             |
| 11 boxes mackerel              | Decomposition                             |
| 84 lbs. of flour               | Decomposition                             |
| Quantity of tinned foods       | Decomposition                             |
| Half-a-ton of celery           | Decomposition                             |

The total weight of food condemned was 9 tons, 14 cwt., 1 qr., 17 lbs. The whole of this food was voluntarily surrendered by the respective owners.

## PUBLIC SLAUGHTERHOUSES.

In August, 1918, the Ministry of Food commenced slaughtering operations at the Public Slaughterhouses, on what is known as the "dead weight" basis. Under this system the farmer is paid at the rate of so much per lb. for the dressed carcass weight of the animal.

Since that date, practically the whole of the meat required by the Worcester butchers has been slaughtered at the Public Slaughterhouses. This has greatly facilitated the work of inspection of internal organs and carcasses, and as it will be seen, a great quantity (9½ tons) of unsound or diseased meat was condemned.

Three Notices have been received from H.M. Inspector of Factories with respect to the following defects in  
 During the past three years the number of animals slaughtered at the Public Slaughterhouses is as follows:—

|                       | Charges for | 1917 | 1918 | 1919  |
|-----------------------|-------------|------|------|-------|
| Number of Beasts..... | 1s. ...     | 843  | 902  | 1238  |
| „ Sheep.....          | 3d. ...     | 2984 | 6071 | 14638 |
| „ Calves.....         | 6d. ...     | 57   | 180  | 1136  |
| „ Pork Pigs .         | 6d. ...     | 1158 | 1605 | 1338  |
| „ Bacon Pigs          | 1s. ...     | 36   | 50   | 167   |
|                       |             | 5078 | 8808 | 18517 |

|   | 1917     | 1918     | 1919    |
|---|----------|----------|---------|
| Amounts received for Slaughtering ..... | 113 17 0 | 168 12 3 | 316 4 6 |

## SALE OF FOOD AND DRUGS ACT.

### FACTORY AND WORKSHOPS ACT.

At the end of 1918 there were 203 workshops, not including bakehouses, on our Register.

Two new workshops have been added during the year, and four have been struck off, having given up business. From time to time visits have been paid to the workshops, and the attention of several occupiers has been called to the need of cleansing and limewashing.



Three Notices have been received from H.M. Inspector of Factories with respect to the following defects in factories:—

1. No proper fastenings to the doors of the sanitary conveniences for women.
2. Women's sanitary convenience not properly lighted.
3. Women's sanitary convenience unsuitable.

To remedy the latter Notice it was necessary to entirely reconstruct the W.C.'s accommodation, providing new drainage, wash-down pedestals, and flushing apparatus to each W.C. complete, at a cost of several hundred pounds.

Of the 69 bakehouses on the Register, 54 were occupied and 15 were void. Four breaches of the special sanitary requirements for bakehouses were dealt with.

### SALE OF FOOD AND DRUGS ACTS.

The total number of samples submitted to the Analyst in 1918 was 137. Of these 87 were taken under the Sale of Food and Drugs Acts, and 50 were test samples.

Of the 87 samples taken under the Acts, 78 were certified to be genuine, and nine as adulterated; of the 50 test samples, 48 were certified to be genuine, and two as adulterated.

The following Table shows the amount of adulteration during the past three years :—

|                                 | 1916        |          | 1917         |          | 1918        |          |
|---------------------------------|-------------|----------|--------------|----------|-------------|----------|
|                                 | Formal      | Informal | Formal       | Informal | Formal      | Informal |
| Analyses .....                  | 91          | 65       | 90           | 51       | 87          | 50       |
| Adulterated .....               | 9           | 3        | 15           | 3        | 9           | 2        |
| Adulterated per cent. .         | 9.9         | 4.6      | 16.7         | 5.9      | 10.3        | 4.0      |
| Amounts of Fines and Costs..... | £1. os. od. |          | £11 10s. od. |          | £60 3s. od. |          |

### MILK.

Of the 67 samples examined under the Acts, 58 proved to be above the standard laid down by the Board of Agriculture, viz. : 3 per cent. of fat and 8.5 per cent. of non-fatty solids.

The following is the extent of the deficiencies of the remaining nine samples :—

| No. of Samples. | Extent of Deficiency.   | Result.   |
|-----------------|---|-----------|
| 1               | 4.7 per cent. deficient in non-fatty solids .....                     | Fine £15. |
| 1               | 6.6 per cent. deficient in fat .....                                  | Fine £5.  |
| 1               | 25 per cent. deficient in fat and 27 per cent. in non-fatty solids... | Fine £20. |



| No. of Samples. | Extent of Deficiency.  | Result.   |
|-----------------|--|---|
| 1               | 3.3 per cent. deficient in fat and 20 per cent. in non-fatty solids... | Fine £10 and 21/- costs.  |
| 1               | 20 per cent. deficient in fat and 30 per cent. in non-fatty solids...  | Fine £5 and 21/- costs  |
| 1               | 8.2 per cent. deficient in non-fatty solids.....                       | Fine £2 and 21/- costs  |
| 1               | 5.8 deficient in non-fatty solids ...                                  | Case dismissed, defence being that milk was sold as it came from the cow. |
| 1               | 3 per cent. deficient in non-fatty solids.....                         | Vendors appeared before the Health Committee and were warned.             |
| 1               | 2.3 per cent. deficient in non-fatty solids.....                       |   |

I am,

Mr. Mayor and Gentlemen,

Your obedient Servant,

**RALPH TAYLOR,**

Member of the San. Inspectors' Association,

Cert. R. Sanitary Institute,

Cert. Inspector of Meat and other Foods,

Chief Sanitary Inspector.





# DEATHS REGISTERED FROM ALL CAUSES

## DURING THE YEAR 1918.

NOTE.—The Deaths of Non-Residents occurring in Public Institutions situated in the District are excluded, and the Deaths of Residents occurring in Public Institutions situated beyond the limits of the District are included.

| No. | Diseases.                              | Ages.  |        |         |          |          |          |          |          |          |          |          |          | All Ages |
|-----|--|--------|--------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|     |  | 0 to 1 | 1 to 5 | 5 to 10 | 10 to 15 | 15 to 20 | 20 to 25 | 25 to 35 | 35 to 45 | 45 to 55 | 55 to 65 | 65 to 75 | 75 to 85 |          |
| 1   | Smallpox .....                         | 1      | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 2   | Measles .....                          | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 3   | Whooping Cough .....                   | 2      | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 4   | Scarlet Fever .....                    | ..     | 1      | 1       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 5   | Diphtheria .....                       | ..     | 4      | 1       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 6   | Enteric Fever .....                    | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 7   | Paratyphoid Fever .....                | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 8   | Typhus Fever .....                     | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 9   | Epidemic Influenza .....               | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 10  | Dysentery, Dysentery .....             | ..     | 1      | 19      | 7        | 9        | 7        | 40       | 26       | 10       | 12       | 8        | 5        | ..       |
| 11  | Epidemic Enteritis .....               | ..     | 2      | 1       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 12  | Asiatic Cholera .....                  | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 13  | Other Allied Diseases .....            | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 14  | Cerebro Spinal Meningitis .....        | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 15  | Fueryphoid Fever .....                 | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 16  | Pyæmia .....                           | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 17  | Infective Endocarditis .....           | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 18  | Hydrophobia .....                      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 19  | Glanders .....                         | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 20  | Anthrax .....                          | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 21  | Tetanus .....                          | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 22  | Cowpox .....                           | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 23  | Scrophulous .....                      | ..     | 2      | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 24  | Scarlet Fever .....                    | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 25  | Pharyngeal .....                       | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 26  | Other Allied Diseases .....            | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 27  | Rheumatic Fever .....                  | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 28  | Rheumatism .....                       | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 29  | Tuberculosis of Brain .....            | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 30  | Tuberculosis of Larynx .....           | ..     | 1      | 1       | 2        | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 31  | Tuberculosis of Lungs .....            | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 32  | Tuberculosis of Abdomen .....          | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 33  | Tuberculosis of Bones and Joints ..... | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 34  | General Tuberculosis .....             | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 35  | Other Infective Diseases .....         | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 36  | Thrush .....                           | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 37  | Actinomycosis .....                    | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 38  | Hydatid Diseases .....                 | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 39  | Scoury .....                           | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 40  | Diseases due to altered Food .....     | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 41  | Acute Alcoholism .....                 | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 42  | Chronic Alcoholism .....               | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 43  | Chronic Industrial Poisonings .....    | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 44  | Other Chronic Poisonings .....         | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 45  | Pyothren Alveolitis .....              | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 46  | Osteo-arthritis .....                  | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 47  | Cancer .....                           | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 48  | Diabetes Mellitus .....                | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 49  | Purpura Hemorrhagica .....             | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 50  | Hæmophilia .....                       | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 51  | Anæmia .....                           | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 52  | Lymphadenoma .....                     | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 53  | Premature Birth .....                  | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 54  | Injury at Birth .....                  | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 55  | Debility at Birth .....                | ..     | 1      | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 56  | Atelectasis .....                      | ..     | 2      | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 57  | Apnoea .....                           | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 58  | Want of Breast Milk .....              | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 59  | Atrophy, Debility, Marasmus .....      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 60  | Dentition .....                        | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 61  | Rickets .....                          | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 62  | Old Age, Senile Decay .....            | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 63  | Convulsions .....                      | ..     | 2      | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 64  | Measles .....                          | ..     | 1      | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 65  | Scarlet Fever .....                    | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 66  | Apoplexy .....                         | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 67  | Something of Brain .....               | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 68  | Epilepsy .....                         | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 69  | General Paralysis of Insane .....      | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 70  | Other forms of Insanity .....          | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 71  | Chorea .....                           | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 72  | Cerebral Tumour .....                  | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 73  | Epilepsy .....                         | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 74  | Laryngismus Stridulus .....            | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 75  | Leucodur Alax .....                    | ..     | ..     | ..      | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       | ..       |
| 76  | Paraplegia .....                       | ..     | ..     |         |          |          |          |          |          |          |          |          |          |          |



